

5th Swerim Hydrogen Gas Seminar 2026

– Process and Materials

PROGRAMME 17th of March 2026

Clarion Hotel Sense, Luleå

10:30–11:00	REGISTRATION AND COFFEE
11:00–12:10	Welcome to the Seminar <i>Pontus Sjöberg, Swerim</i> Roadmaps for Fossil Free Competitiveness <i>Svante Axelsson or David Lundberg, Fossil Free Sweden</i> Challenges and Opportunities for the Swedish Hydrogen Sector, with a Global Outlook <i>Björn Aronsson, Vätgas Sverige</i> Strengthening the Swedish Hydrogen Innovation System <i>Cecila Wallmark, SIC! CHESS</i>
12:10–13:10	LUNCH
13:10–14:10	Hydrogen – Considerations for Transforming of the Steel Industry <i>Rizwan Janjua, World Steel Association</i> Hydrogen in Industrial Practice for Steelmaking in Boden <i>Marita Nilsson, Stegra</i> FINAST: Green Steel Research Collaboration between LTU-Swerim–SSAB <i>Hans Åhlin, LTU</i>
14:10–14:30	COFFEE BREAK
14:30–15:50	Hydrogen – From a Supplier's Perspective <i>Aditi Bhasin, Lhyfe</i> Hydrogen as a Fuel <i>Tomas Walander, Manntek</i> Scania Fuel Cell Electric Vehicle Pilots in the Present Day and in the Future <i>Simon Reifarth, Traton</i> Cost-Effective PEMWE through Lower-than-expected Potentials at the Anode Side <i>Sebastian Proch, Alleima</i>
15:50–16:10	COFFEE BREAK
16:10–17:10	Fossil Free Energy Carrier - How E-methanol Completes the Value Chain <i>Ulrica Johansson, Liquid Wind</i> The Impact of High Efficient Technologies in the Development of Biogas and Green H₂ <i>Carlos Bernuy-Lopez, Ramboll</i> Hydrogen Research at Swerim <i>Gustav Häggström, Nuria Fuertes, Swerim</i>
18:00	Bus transfer to Cape Wild
	Guided visit at the moose and reindeer park Dinner at Cape Wild
~21:30	Bus transfer back to Clarion Hotel Sense



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08.30–10:10	TECHNICAL SESSION – Materials
	Insights from Hydrogen Embrittlement Testing of Stainless Steels <i>Johan Pilhagen, Outokumpu Stainless</i>
	Electrochemical vs. Gas Charging for Hydrogen Embrittlement Evaluation <i>Birhan Sefer, Swerim</i>
	Recent Lessons Learned from Mechanical Testing in Hydrogen Environment at GKN <i>Patrik Wadenbrant, GKN Aerospace</i>
	Mechanical Performance of Superalloy Inconel 718 in Pressurized Hydrogen Gas <i>Robert Sundström, Swerim</i>
	Hydrogen Embrittlement of Stainless Steel 321 and Hastelloy X, from a Gas Turbine Perspective <i>Vishnu Anilkumar, Siemens Energy</i>
10:10-10:40	COFFEE BREAK
10:40-12:20	TECHNICAL SESSION – Materials
	Mitigating Hydrogen Embrittlement and Permeation: Advances in Barrier Technologies <i>Anna Carlsson, Terrabarrier</i>
	Performance of Stainless Steel Welds in Hydrogen Environment <i>Klara Trydell, Swerim</i>
	Hydrogen Resistance Evaluation of High Strength Carbon Steels Using the Hollow Specimen Method <i>Eduard Navalles Martinez, Swerim</i>
	Prevention of Hydrogen Embrittlement in Ultra-High-Strength Steel <i>Steve Ooi, Ovako</i>
	The Interaction Between Hydrogen and Localized Plasticity <i>Haiyang Yu, Uppsala Universitet</i>
12:20-13:20	LUNCH
13:30	Bus transfer to Swerim
14:00-14:30	Inauguration ceremony of the unique H₂ autoclave mechanical test facility
14:30-16:30	Guided tour at Swerim
16:45	Bus transfer from Swerim to the airport and Clarion Hotel Sense



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	Oxidation & Descaling of Reheated Steel Using Propane and Hydrogen Mixtures in a Pilot Scale Batch Furnace <i>Gustav Häggström, Swerim</i>
	Oxide Scale Formation under Conventional and Hydrogen Combustion <i>Andrea Olivas, Swerim</i>
	Pilot Scale Hydrogen Combustion in a Continuous Reheating Furnace <i>Gustav Häggström, Swerim</i>
	Combining Hydrogen and Direct Electric Heating in a Continuous Pilot Reheating Furnace <i>Andreas Johnsson, Swerim</i>
	Flame Characterization and NO_x Assessment of Hydrogen-Based Coal Substitution in Rotary Kiln for Iron Ore Induration <i>Samuel Colin, LKAB</i>
10:10-10:40	COFFEE BREAK
10:40-12:20	TECHNICAL SESSION – Process
	Hydrogen Use in Copper Extraction <i>Shareq Mohd Nazir, KTH</i>
	Material Challenges in Ammonia Cracking <i>Jebin James, Duiker</i>
	The Emphatical Project: Efficient Methanol from Pumped Heat and Calcium Looping <i>Malin Blomqvist, Swerim</i>
	Hydrogen Pathways to Value-Added Chemicals in Decarbonization Heavy Industry <i>Joey Dobree, Next Chem</i>
	Towards Acceleration and Demonstration of E-Methanol <i>Alex de Jong, Bright Renewables</i>
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